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ABSTRACT

Research into children's responses to constructive and aggressive behavior in a television drama is provided. This study is also reported in related document SO 008 573. A 22-minute action-adventure television program depicting an intense interpersonal conflict was edited into two versions. In one version the hero responded with physical aggression and in the other with constructive nonviolent efforts. Fourth, seventh, and tenth graders viewed one of these versions or a wildlife documentary. They were then given an opportunity to either "help" or "hurt" a peer who was completing a task. At all three grade levels, children who had seen models of constructive coping showed greater frequency and duration of prosocial responding than subjects in other conditions. The results indicate that viewing modeled constructive responses to provocation enhances general prosocial responding and inhibits aggressive behavior. (Author/DE)

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# Children's Responses to Constructive and Aggressive Reactions to Threat Situations in Television Drama

W. Andrew Collins[1] and Suzanne Kasper-Gecy

Institute of Child Development

University of Minnesota

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Running head: Constructive and aggressive reactions to threat

Abstract

A televised drama was edited such that a model responded constructively to an interpersonal conflict in one version and aggressively in the other. Fourth, seventh, and tenth graders (N = 54) saw one of these versions or a wildlife documentary. They were then given an opportunity to either "help" or "hurt" a peer who was completing a task. At all three grade levels children who had seen models of constructive coping showed greater frequency and duration of prosocial responding than subjects in other conditions. There appeared to be no differential arousal for the conditions, suggesting that the prosocial model encouraged responding that was incompatible with "hurting" another child. Results were discussed in terms of the effect of the context in which modeled behaviors are embedded upon observers' subsequent adoption of them.

# Children's Responses to Constructive and Aggressive Reactions to Threat Situations in Television Drama

Television is widely recognized as a purveyor of social models to children, but it is also frequently criticized for the lack of diversity of social conditions and roles in which behavioral models appear (Leifer, Gordon & Graves 1974). For example, although both aggressive and prosocial models are included in programs and affect the subsequent behaviors of children who view them (Bryan & Schwartz 1971; Liebert, Neale & Davidson 1973; Stein & Friedrich, in press), these two types of models are usually presented in stereotypically different dramatic contexts. Prosocial behaviors are often featured in a context of slow-paced, nonconflictful, quiet entertainment, while aggression almost invariably occurs after some dramatic provocation that is action-filled and conflictful (Gerbner 1972). The effectiveness of prosocial responses to dramatic provocation has not been studied, although positive responses to conflict are relevant and realistic possibilities. The present study is designed to examine the relative effects of modeled prosocial and aggressive responses to conflict situations.

The context in which a modeling sequence is embedded may well affect the degree to which the behaviors are adopted by observers, but there is little evidence regarding the nature of the interaction between modeling cues and context. The issue is especially relevant to assessing the effects of models that show nonaggressive, constructive reactions to conflict or threat situations. One popular hypothesis is that the effects of prosocial models may not extend to contexts that are typical of modeled aggression, either because the more positive behaviors are less likely to be attended to and learned, or because the provocation itself arouses aggressive tendencies that are inimical to the

modeled prosocial behavior. Tannenbaum and Gaer's (1965) finding that provocation scenes involving threat of physical harm were emotionally arousing for viewers suggests this idea, although behavioral effects were not measured in this study.

However, models who respond constructively to provocation might actually enhance subsequent prosocial responding by observers. This possibility is suggested by Chittenden's (1942) report that nursery-school children who tended to dominate in peer-play became more cooperative after symbolic doll-play, training in positive responding to difficult situations with others. Since the children's total activity level did not change, Chittenden's procedures apparently encouraged responses that were incompatible with dominative behaviors. Perhaps televised models who respond constructively to threat could also enhance constructive responses that are incompatible with physical aggression in post-viewing situations. This effect might result from heightened attention to prosocial models because their behavior is discrepant from the aggression that stereotypically occurs in television threat situations. A second possibility is that arousal-inducing provocation scenes might heighten performance effects of modeling cues.

In the present experiment, the effects of a prosocial, constructive response to threat and a physically aggressive reaction to the same provocation were compared. Children and adolescents watched a television drama edited to show one of these two types of response, or they saw a neutral program. Their own interpersonal behavior tendencies, either prosocial or aggressive, were then assessed.

## Method

### Subjects

The 60 subjects were drawn from six classrooms at each of three grade levels in a suburban Minneapolis school district. They included 12 male and 12 female fourth graders (mean age = 9 years, 8 months; range = 9,4 - 11,0),

6 male and 6 female seventh graders (mean age = 13,0; range = 12,2 - 14,4), and 12 male and 12 female tenth graders (mean age = 16,1; range = 15,3 - 17,0). The school district was predominantly middle-class, and more than 95% of the subjects were white.

Although age-related predictions were not central to the study, subjects of several ages were included in the interest of generality of the television-content effects.

Stimuli

A 22-minute action-adventure television program depicting an intense interpersonal conflict was edited into two versions. The conflict centered on a police captain who, while acting as legal guardian for a young boy, was framed on a bribery charge by the boy's gangster uncle. In the Aggression version the police captain responded to the threat by refusing to cooperate with investigators and by confronting the gangster himself. This version was distinctive in that two scenes, both involving fist-fighting and one involving gunfire, were included. In the Constructive Coping version, the aggressive scenes were replaced with three scenes showing investigators gathering clues, engaged in negotiation, and collaborating on a constructive solution to the problem. No aggression was included. Additional minor variations occurred in the two versions in order to preserve the dramatic continuity in each, but the basic threat-depicting scenes appeared intact in both versions. Commercials were removed from the edited programs. A more detailed summary of the two versions appears in Collins (Note 1) and is also available from the authors on request.

Control subjects saw a documentary about ecological balance on the African savanna. This program included no modeling of interpersonal behaviors. To equalize the length of the tapes, two commercials about the production and use of energy were inserted in the control tape.

Procedure

Experimenters. Two white females conducted the study. Each experimenter was assisted by a white female or a white male equipment operator. The subjects were told that the experimenters were "people from the university" who wanted their help on "several projects."

Exposure to the stimulus. The experimenter randomly divided the class into two groups, each with half of the males and half of the females in the class, and assigned each group to separate rooms. To minimize classroom effects, the two groups from each classroom were randomly assigned to some two of the three conditions (Aggression, Constructive Coping, Control). In this way, a given classroom contributed equally to two, but not to all, of the conditions in the study. In each group of approximately 12-15 children, a condition videotape was played back on a Sony CV-2200 videocorder and viewed on a 19" black-and-white television monitor. The children, who viewed in rooms in their school building, were told to "relax and enjoy the show as if you were watching at home."

Dependent measure. Immediately after viewing, one male and one female from each of the two viewing conditions in a classroom were asked to "help us on another project." They then went to another classroom and responded to a version of the Buss (1961) aggression machine, similar to that employed by Mallick & McCandless (1966) and by Liebert & Baron (1972). The remainder of the subjects participated in another activity not reported here. The modified Buss procedure, called the "Help-Hurt machine", was used to assess the willingness of the subjects to help or hurt another (fictitious) child they thought was working on a sound discrimination task in another room. Although subjects could neither see nor hear their alters, they were told that

the light on the gray response box in front of them would flash whenever the alter made an error on the hearing test. The subject then had to decide to push one of the two buttons. They were told that the green "help" button would help the alter by eliminating a distracting background noise, while the red "hurt" button would hurt the alter's performance by making the distracting noise louder. Subjects were also told that the longer they held down either button each time the indicator light flashed, the more they helped or hurt the alter's performance. Each subject wore safety earphones so as not to hear the activity of the other subjects, and each response box was separated from the others by screens to prevent subjects' noticing that the lights for all four subjects flashed simultaneously.

The entire procedure for testing each subject was controlled in an adjacent room so as to produce 20 trials. Each trial lasted for 15 seconds, and there was a 15-second interval between trials. The timing was automated by an electric timer attached to the response apparatus. Each subject's response on each trial (that is, whether he/she pushed the Help or the Hurt button) and the duration of that response were automatically recorded by an Esterline-Angus pen recorder. This device was attached to the timer so that the duration of a response could be determined with an accuracy of .1 second.

Four interpersonal response scores were computed for each subject on the basis of Help-Hurt responses. (a) Frequency of Help and (b) Frequency of Hurt responses consisted of the number of times out of the 20 trials that the Help and the Hurt buttons were pushed. Subjects were instructed to push only one button on each trial and to push that button only once. However, they were free to hold the button down as long as they wished. In the rare cases of multiple button pushes per trial, only the first push was counted. (c) Help-Duration and (d) Hurt-Duration scores were calculated as the total amount of

time each of the two buttons was depressed over the 20 trials. Only the durations of the button pushes included in the frequency count for each button were added into the total-duration scores. The Help-Duration scores yielded a split half reliability of .88.

It was necessary to omit data for six subjects from the analysis. Five sets of data were dropped because the subjects failed to complete all 20 trials, either because of external interferences or inattention. The sixth subject misunderstood the Help-Hurt instructions about signals for beginning and ending of trials. Table 1 shows the original number of subjects by sex, grade and condition and indicates subject loss. After the Help-Hurt measure was completed and subjects' questions were answered, all subjects briefly answered written questions about the plot and the characters of the program they viewed.

## Results

### Constructive Coping

Children were significantly more likely to choose positive responses on the Help-Hurt measure after seeing the Constructive Coping program than after seeing either the Aggression or Control programs. Prosocial response means are shown in Figure 1. A three-way analysis of variance (sex x grade x condition) for unequal N's showed a significant effect of condition on the number of Help responses children delivered ($F = 3.65$, $df = 2,36$, $p < .05$). Newman-Keuls comparisons of means (Winer, 1962) indicated that children who viewed the Constructive Coping sequence gave more Help responses than children who viewed either the Aggression or the Control programs ($p < .05$). Since Aggression condition viewers did not differ from Control subjects ($p > .05$), the condition effect was most likely due to the enhancing effect of the Constructive Coping version on prosocial responses rather than to the deleterious effect of the Aggression condition. Parallel but nonsignificant condition differences were found for the Help-duration response measure ($F < 1$).

Frequency of Help responses increased with grade ($F = 7.26$, $df = 2,36$, $p < .005$). Newman-Keuls' comparisons of means showed that this effect was primarily due to a significant increase in helping from the fourth to the tenth grades ($p < .01$). Seventh graders' helping tendencies were not different from those of either older or younger subjects ($p > .05$). This grade pattern was not apparent on the Help-duration measure ($p > .05$). There was no interaction involving grade.

There were no sex differences on either the frequency or the duration indices of helping ($F < 1$ for both).

Aggression

Condition effects on aggressive-behavior (Hurt) scores were also pronounced, as Figure 2 shows. Children who saw the Aggression program were significantly more aggressive than children in the Constructive Coping condition on both Frequency and Duration indices (Newman-Keuls, $p < .05$); however, the Aggression-Control difference was not significant ($p > .05$). Thus, the Constructive Coping modeling again appears responsible for condition effects on both the frequency of Hurt responses ($F = 3.55$, $df = 2,36$, $p < .05$) and the Hurt-duration measure ($F = 3.54$, $df = 2,36$, $p < .05$).

The tendency for aggressive responding decreased with grade in both frequency ($F = 6.01$, $df = 2,36$, $p < .01$) and duration ($F = 4.73$, $df = 2,36$, $p < .05$). Newman-Keuls comparisons of means further indicated that fourth graders' scores on both frequency and duration were significantly greater than tenth graders' ($p < .05$), but seventh graders' scores were not significantly different from those of the other two age groups ($p > .05$). No other main effects or interactions appeared in analyses of the Help-Hurt responses.

Aggression scores were highly negatively correlated with Frequency of Help ($r = -.98$ for frequency of Hurt, $r = -.81$ for Hurt-Duration; for both, $p < .001$), and Help Duration scores ($r = -.66$ for Frequency of Hurt, $r = -.41$ for Hurt Duration; for both, $p < .001$). Intercorrelations for each grade level separately were similarly high and negative.

Arousal

Since arousal is often thought to account for effects of mass-media violence, an analysis was performed to determine whether the prosocial and aggressive conditions were differentially arousing. If the Constructive Coping version proved to be less arousing than the Aggression and Control versions, the contrasting effects of the two programs might be attributable to the differential arousal effects of the models rather than the specific disinhibition effects of their behaviors. Consequently, an analysis of combined total-duration of Help and Hurt scores, representing total button-pushing activity, was performed. There was no difference between conditions ($F < 1$) on this "activity index," indicating that condition differences in response patterns were probably not an artifact of different total amounts of responding.

## Discussion

The results indicate that viewing modeled constructive responses to provocation enhances general prosocial responding and inhibits aggressive responding. This was true even though the stimulus programs apparently did not induce different levels of activity. The most plausible explanation for these effects is that the Constructive-Coping subjects were affected by modeling cues that were incompatible with the less positive responses available to them. The finding is reminiscent both of Chittenden's (1942) results and Davitz's (1952) evidence that training children in constructive activities increases the likelihood of constructive reactions following frustration. Perhaps televised

models provide such training for young observers. This may be particularly true when the models themselves are responding to provocative circumstances that are stereotyped contexts for aggressive responding.

The strong effect of the Constructive Coping condition was found at all three age levels. At the same time, there was some indication that absolute levels of positive responding increased and hostile responding decreased as a function of age level. While a negative correlation between the two is not surprising, there is little basis, either in the present study or in the existing literature (e.g., Feshbach 1970; Rosenhan 1972), for explaining this particular pattern of mean scores. It may be that tendencies to choose the prosocial alternative in a forced-choice situation like the Help-Hurt measure increases with age, producing a corresponding decrease in aggressive responding; or aggressive choices themselves may be less likely with increasing age, making prosocial alternatives more likely. The fact that Hurt-Duration scores decreased significantly across grades, while Help-Duration scores showed no grade effects, makes the latter explanation more credible. However, it is possible that inverse age-related pattern for the frequency scores is not due to either of the simple causal relationships mentioned previously. Rather, it may be explainable by two related phenomena: (1) socialization practices that encourage constructive responding while discouraging aggressive behaviors; as well as (2) the development of empathic cognitive and affective capabilities that are incompatible with aggression (Feshbach & Feshbach, Note 2), but that might facilitate prosocial responding. The fact that both frequency and duration indices of positive and hostile responding are negatively correlated within each grade level suggests that, if these latter processes do affect

social responding, they have begun to do so by third grade and progressively affect children's behavior into high school.

A pertinent hypothesis implied by these data is that modeled prosocial responses to an arousal-inducing provocation may be even more potent than modeled aggression in similar provocative contexts. A test of this hypothesis requires an equivalence of modeling instances that cannot be assumed for the present stimuli; consequently, the fact that both "Help" and "Hurt" response patterns appear to result from the increase in Help and the decrease in Hurt behaviors in the Constructive Coping condition is not fully interpretable. However, in view of the frequently reported aggression-enhancing effects of modeled aggression, the relatively strong effect of the prosocial model deserves further attention. One possible reason for it is that, compared to the aggressive stimuli used in many other studies, the aggression used in the present Aggression version was relatively weak; in other words, the absence of significant disinhibiting effects may simply be due to conservative choice of an aggressive stimulus. A second possibility is that non-aggressive responses are relatively novel reactions to threat in typical television programs; consequently, they may have been more attention-getting than aggression. A third especially interesting possibility is that middle-class children such as our subjects have been socialized to value non-aggressive solutions and, therefore, implicitly assign a higher valence to a modeled solution of this type than to an aggressive solution. Further research should be directed to clarification of such possible factors in the impact of nonaggressive models.

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Footnote

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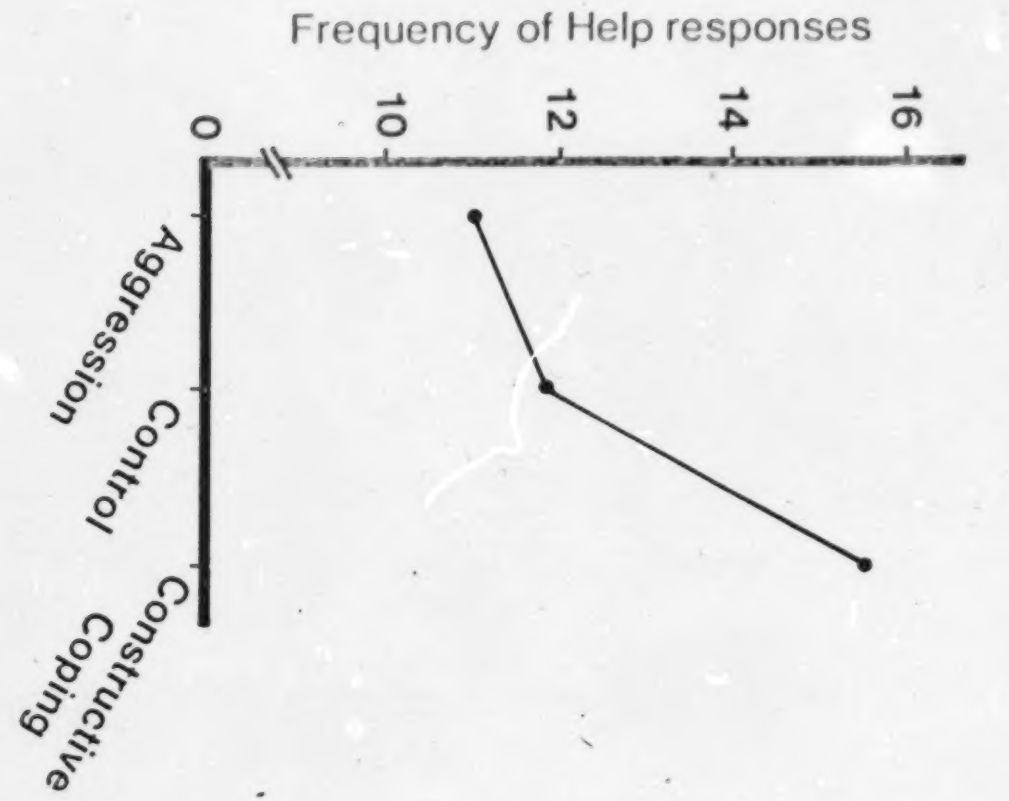
## Figure Captions

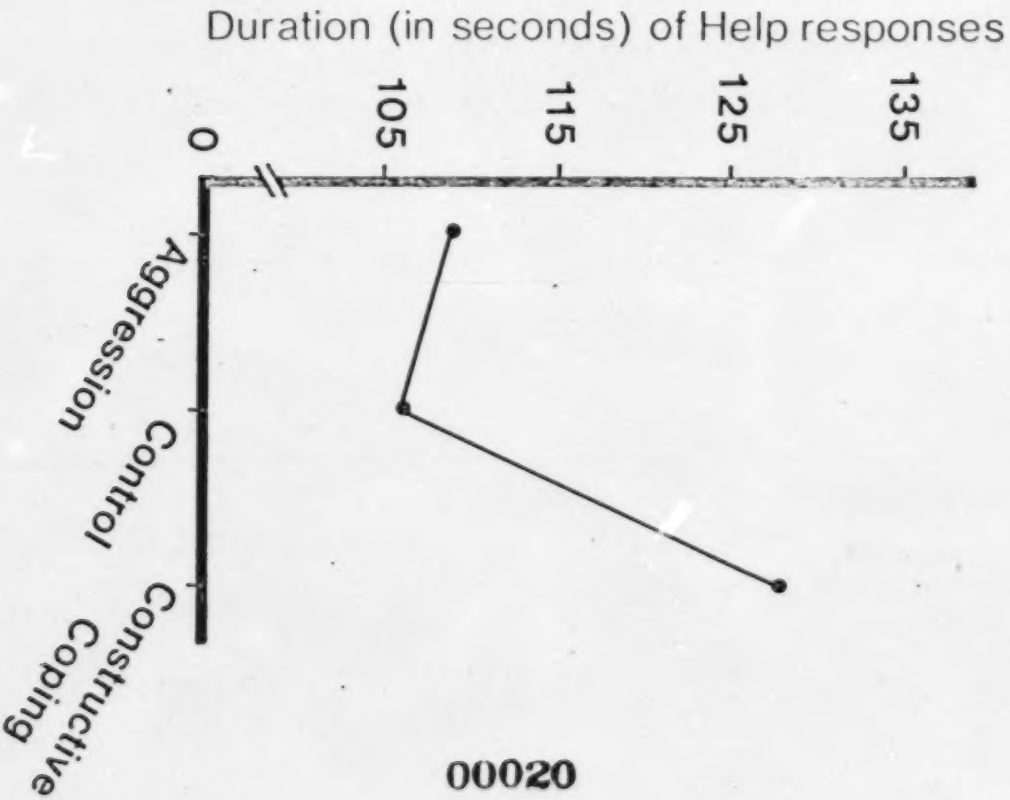
Figure 1. Mean frequency and duration of help responses in three viewing conditions.

Figure 2. Mean frequency and duration of hurt responses in three viewing conditions.

Duration (in seconds) of Hurt responses
70
60
50
40
30
0
Aggression
Control
Constructive Coping


Frequency of Hurt responses
10
8
6
4
2
0
Aggression
Control
Constructive Coping


Frequency of Help responses
0
10
12
14
16
Aggression
Control
Constructive Coping


Duration (in seconds) of Help responses
0
105
115
125
135
Aggression
Control
Constructive Coping